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From: Rebecca Clayton Admin. Assistant to Stephen J. Walder, Jr.	No. of Pages Including Cover Sheet: 19

Please Acknowledge Receipt of the Following Documents Filed Herewith:

(1) Transmittal Document; and

(2) Appellants' Reply Brief (37 C.F.R. 41.41).

Serial No. 09/838,420; Attorney Docket No. FR920000032US1

Date: Tuesday, September 20, 2005

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SEP 2 0 2005

In re application of: **Bauchot et al.**	Group Art Unit: **2176**
Serial No.: **09/838,420**	Examiner: **Stevens, Robert**
Filed: **April 19, 2001**	Attorney Docket No.: **FR920000032US1**

For: **Method and System in an Electronic Spreadsheet for Managing and Handling User-Defined Options**

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- Appellants' Reply Brief (37 C.F.R. 41.41).

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Respectfully submitted,

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Docket No. FR920000032US1   SEP 2 0 2005   *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Bauchot et al.	§	Group Art Unit: 2176
	§	
Serial No. 09/838,420	§	Examiner: Stevens, Robert
	§	
Filed: **April 19, 2001**	§	Customer No. 50170
	§	
For: **Method and System in an Electronic Spreadsheet for Managing and Handling User-Defined Options**	§ § §	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

APPELLANTS' REPLY BRIEF (37 C.F.R. 41.41)

This reply brief is in response to the Examiner's Answer mailed July 26, 2005.

The fees required under § 1.17(c), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF REPLY BRIEF.

(Appellants' Reply Brief Page 1 of 17)
Bauchot et al. – 09/838,420

I.   Summary of the Invention

In the Examiner's Answer, the Examiner provides a "characterization" of Appellants invention. It is respectfully submitted that the Examiner's "characterization" of Appellants invention is directed to one exemplary embodiment of the present invention. The claims on appeal should not be limited to the particular embodiment that the Examiner chooses to use to "characterize" the invention. Appellants respectfully submit that the Summary of the Invention provided in Appellants' Brief is sufficient for summarizing the subject matter set forth in the claims and providing citations, in the present specification, to examples in support of this subject matter.

II.   Response to Examiner's Remarks Regarding Rejection Under 35 U.S.C. 112, Second Paragraph

The Examiner's Answer alleges that (1) Appellants' specification does not support the examples of computer usable medium set forth in Appellants' Brief; (2) the term "computer usable medium" could encompass such other things, other than the media examples provided by Appellant, as a table, a person's lap, air, paper, electricity, and a person's voice; (3) it is not clear how the media is "usable"; and (4) that the examples provided by Appellants include tangible and allegedly "intangible" media and thus, the term "computer usable medium" is considered vague.

With regard to the Examiner's first allegation, Appellants' specification provides examples of a computer usable medium in Figure 1 which shows a mass storage 107 and a main memory 102. While these examples are specifically shown in Figure 1, the term "computer usable medium" encompasses more than these two examples as is readily apparent to those of ordinary skill in the art.

The terms "computer usable medium" and "computer readable medium" are terms of art and thus, have an accepted definition within the art as set forth in Appellants' Brief, i.e. any medium that is capable of carrying data and/or instructions that are readable by a computing device. The examples provided by Appellants in Appellants' Brief are accepted examples in the art of media that fall within this accepted definition of these terms of art. Thus, the specification does

provide examples of a mass storage device 107, e.g., a hard drive, magnetic tape, CD-ROM, DVD-ROM, etc., and a main memory 102, which are all examples of a "computer usable medium." Moreover, as argued at length in Appellants' Brief, the term "computer usable medium" is a term of art whose scope is well known to those of ordinary skill in the art.

With regard to the Examiner's second allegation, assuming that there is no accepted definition in the art of the term "computer usable medium," Appellants respectfully submit that, theoretically, the Examiner's examples of a table, a person's lap, air, electricity, a person's voice, paper, etc. may well be computer usable medium so long as a table, a person's lap, air, a person's voice, etc. comprises computer readable instructions adapted for carrying out the method in claim 1, as recited in claim 11. In general, a table, a person's lap, air, a person's voice, etc. will not, in reality, have computer readable instructions that are adapted for carrying out the method in claim 1 of the present application. The Examiner is taking the term "computer usable medium" out of context and is failing to consider the fact that the claim does not simply recite "a computer usable medium", but instead recites a computer usable medium comprising computer readable instructions adapted for carrying out the method according to claim 1.

Moreover, if the Examiner can find a reference that teaches a table, a person's lap, air, electricity, or any of the other examples the Examiner gives, which comprises computer readable instructions adapted for carrying out the method according to claim 1 of the present application, then Appellants will concede that the features of claim 11 are anticipated. However, the Examiner has not done so. The Examiner's own examples illustrate the basic misunderstanding on the part of the Examiner. That is, the Examiner is confusing breadth of claim language with definiteness of the claim language. Appellants have clearly set forth that Appellants intend to cover any computer usable medium that comprises computer readable instructions adapted for carrying out the method of claim 1. The Examiner's questioning of the term "computer usable medium" is directed to the scope of this term, not its definiteness.

With regard to the Examiner's third allegation that it is unclear how the media is "used," again the Examiner fails to consider the remainder of the claim. It clearly states in claim 11 that what is being claimed is a computer usable medium having computer readable instructions adapted for carrying out the method of claim 1. Thus, it is clear that the computer usable medium is "used" by having a computer read the computer readable instructions thereon. When the computer readable instructions on the computer usable medium are read, the method recited in claim 1 is

implemented. There is no ambiguity as to the manner by which the medium recited in claim 11 is "used."

Regarding the Examiner's fourth allegation that the examples provided by Appellants include tangible and allegedly "intangible" media and thus, the term "computer usable medium" is considered vague, there is no basis for holding a term to be indefinite simply because it may encompass allegedly "intangible" media. Furthermore, carrier waves and transmission media are tangible media as will be addressed below with regard to the rejection under 35 U.S.C. § 101.

It is reiterated that all of the Examiner's alleged indefiniteness statements are actually statements questioning the breadth of the claim, not the definiteness of the claim language. Appellants have not contested that the term "computer usable medium" may be a broad term covering many different types of computer usable media. Appellants' argument is that the claims are not indefinite and clearly set forth what Appellants regard as the invention. The Examiner is confusing the concept of definiteness with the concept of scope. While the scope of the claims may be broad with respect to the types of computer usable media that may be encompassed within the claims, the claims are specific and clear as to what such computer usable media, whatever that computer usable media may be, must include in order to fall within the scope of these claims.

Thus, for all of the reasons set forth above, and in Appellants' Brief, Appellants respectfully submit that the rejection of claim 11 under 35 U.S.C. § 112, second paragraph should be overturned.

III.   Response to Examiner's Remarks Regarding Rejection Under 35 U.S.C. 101

With regard to Appellants arguments, the Examiner alleges: (1) that the portion of the MPEP cited requires a "recording" and carrier waves and transitory phenomena do not record the functional descriptive material; (2) the language in the cited MPEP section refers to "computer readable medium" and not "computer usable medium;" (3) that reciting functional descriptive material on a computer readable medium does not guarantee that the claim will be statutory; (4) that the computer usable medium may encompass paper, which is allegedly non-statutory abstract ideas, and voice, which is allegedly non-statutory intangible subject matter; and (5) it is a matter of policy that computer usable media claims must be limited to "tangible embodiments" in order to be statutory.

With regard to the Examiner's first allegation, while the portion of the MPEP cited by Appellants does state that the functional descriptive material be "recorded" on some computer readable medium, there is no requirement in the cited portion for any period of time that this functional descriptive material to be present on the computer readable medium. Thus, the Examiners apparent concern about the "transitory" nature of carrier waves is irrelevant.

Moreover, with carrier waves, the data and instructions that are "carried" by the carrier waves are recorded on the carrier waves. As is well known to those of ordinary skill in the art, a carrier wave is modulated to represent the information to be transmitted. A modulating signal (i.e. the signal containing the data/instructions) is used to modulate the carrier wave which transmits the data/instructions to a recipient device. While this recording of data/instructions on a carrier wave through modulation may be "transitory" in that that the carrier wave is consumed at the recipient device, the data/instructions are still recorded on the media, despite the allegations made by the Examiner.

The Examiner seems to believe that 35 U.S.C. § 101 requires a media such as a floppy disk, hard drive, memory device, and the like, because the data/instructions are "permanently," rather than "transitorily" recorded on the media. First, there is no requirement in the case law or the MPEP for any "permanency" of the data on the media. Second, even on a floppy disk, hard drive, memory device, etc., the data is only "permanent" until it is overwritten or erased. Thus, even in the allegedly acceptable media, i.e. floppy disks, hard drives, memory devices, etc., the data/instructions are only temporarily present. While the time that the data/instructions are present on the hard drive or floppy drive may be relatively longer than with a carrier wave, both are only temporarily present. Thus, the Examiner's seeming reliance on the amount of time that the data/instructions are present on the media is clearly erroneous since the MPEP and case law do not require any particular amount of time that the data/instructions are on a media and the alleged differentiation made by the Examiner between carrier waves and alleged "tangible" media is technically incorrect.

Regarding the Examiner's second allegation the language in the cited MPEP section refers to "computer readable medium" and not "computer usable medium," once again the Examiner is failing to consider all of the language in the claim. Claim 11 specifically recites a computer usable medium having computer readable instructions. Thus, claim 11 does recite a computer readable medium. Moreover, as set forth in Appellants' Brief, to those of ordinary

(Appellants' Reply Brief Page 5 of 17)
Bauchot et al. – 09/838,420

PAGE 7/19 * RCVD AT 9/20/2005 1:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/28 * DNIS:2738300 * CSID:214 722 6533 * DURATION (mm-ss):08-36

skill in the art, the terms "computer usable medium" and "computer readable medium" are synonymous and interchangeable. Thus, the Examiner's attempt to differentiate the present claim 11 from the language set forth in the MPEP based on a technicality is without support.

With regard to the Examiner's third allegation that reciting functional descriptive material on a computer readable medium does not guarantee that the claim will be statutory, Appellants respectfully submit that the only exception set forth in the MPEP in which functional descriptive material on a computer readable medium is considered directed to non-statutory subject matter is when the functional descriptive material is directed to a pure mathematical algorithm, i.e. there is no useful, concrete, and tangible result. Thus, Appellants agree that merely reciting functional descriptive material on a computer readable medium does not guarantee that the claim is statutory. However, Appellants submit that the Examiner must show that the claimed invention is directed to a pure mathematical algorithm embodied on a computer readable medium in order to hold the claim as directed to non-statutory subject matter. This is not the case with claim 11 of the present application. As set forth in Appellants' Brief, claim 11 is directed to a computer usable medium having computer readable instructions adapted to perform the method of claim 1, which provides a useful, concrete and tangible result. Thus, claim 11 is directed to statutory subject matter.

Regarding the Examiner's fourth allegation that the computer usable medium may encompass paper, which is allegedly non-statutory abstract ideas, and voice, which is allegedly non-statutory intangible subject matter, again Appellants respectfully submit that the term "computer usable medium" is a term of art and one of ordinary skill in the art understands this term to not include code or data written on a piece of paper or someone speaking the code/data to a computer. However, even if one were to disregard the fact that this term is a term of art, it is noted that the U.S. Patent and Trademark Office has an entire class of invention dedicated to printed matter, i.e. class 283. Under the Examiner's position, apparently the U.S. Patent and Trademark Office is issuing patents in a class of invention that is non-statutory, i.e. printed matter. The only reasonable interpretation is that the Examiner is incorrect in assuming that simply because code may be written on a piece of paper, that the paper with the computer readable code on it is non-statutory. Similarly, the U.S. Patent and Trademark Office has classes of invention directed to computer processing of voice input. Thus, Appellants respectfully submit that such embodiments of having computer readable instructions on paper and spoken by

(Appellants' Reply Brief Page 6 of 17)
Bauchot et al. – 09/838,420

PAGE 8/19 * RCVD AT 9/20/2005 1:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/28 * DNIS:2738300 * CSID:214 722 6533 * DURATION (mm-ss):08-38

a person are not intended to be within the scope of the term "computer usable medium," one of ordinary skill in the art understands that the term "computer usable medium" does not cover instructions/data written on paper or a person speaking the instructions/data, and printed matter and voice input having computer readable instructions are accepted by the U.S. Patent and Trademark Office as statutory subject matter.

Regarding the Examiner's fifth allegation that it is a matter of policy that computer usable media claims must be limited to "tangible embodiments" in order to be statutory, Appellants have not received any official notice of such a "policy" having been adopted by the U.S. Patent and Trademark Office. Furthermore, the U.S. Patent and Trademark Office may not adopt a policy that is contrary to the established prevailing case law. As set forth in the MPEP and cited in Appellants' Brief, the case law clearly states that as long as the functional descriptive material is recorded in some computer readable medium, the claim will be considered directed to statutory subject matter as long as the functional descriptive material is not a pure mathematical algorithm. The MPEP and case law do not draw any distinctions between allegedly "tangible" and "intangible" media, i.e. the MPEP and case law do not say so long as the functional descriptive material is recorded in some "tangible" computer readable medium or that "intangible" media are non-statutory. This requirement for "tangible" media is a completely new requirement devised by the Examiner and, from the Examiner's statement that this requirement is "policy," apparently the U.S. Patent and Trademark Office (even though no official notice of such a policy exists) in contrast to the accepted prevailing case law.

Moreover, the Examiner is incorrect in the allegation that carrier waves and transmission media are "intangible." The term "tangible" is not limited to elements that may be perceived only by the sense of touch. To the contrary, the term "tangible" refers to anything that is capable of being perceived, precisely identified or realized by the mind, or capable of being appraised at an actual or approximate value (see Merriam-Webster Online Dictionary Definition, copy attached in Evidence Appendix hereafter). In other words, something is "tangible" if it is possible to verify its existence. This does not require that the element be "touchable" but merely "perceivable."

Carrier waves and signal or transmission media are clearly perceivable, able to be precisely identified or realized by the mind, and are capable of being appraised. Computer readable media, or computer usable media, must be inherently "perceivable," otherwise they

would not be "computer readable" or "computer usable." In other words, carrier waves and signal or transmission media are measurable, readable, or usable by appropriate devices for measuring, reading or using such waves and media. Thus, they are "tangible" despite the allegations made by the Examiner. Since these types of media are "tangible," even if there were some requirement in the MPEP, or new policy adopted by the U.S. Patent and Trademark Office, that the media be "tangible," the present claims would still meet this new requirement and thus, be directed to statutory subject matter.

Thus, for the reasons set forth above and in Appellants' Brief, Appellants respectfully submit that claim 11 is directed to statutory subject matter. Accordingly Appellants reiterate Appellants' request that the Board of Patent Appeals and Interferences overturn the rejection of claim 11 under 35 U.S.C. § 101.

IV.   Response to Examiner's Remarks Regarding Rejection Under 35 U.S.C. 103(a) of Independent Claims 1, 10 and 11

With regard to Appellants' arguments in reference to the rejection of claims 1, 10 and 11 under 35 U.S.C 103(a), the Examiner alleges: (1) that in order to make a determination as to whether a condition is met, a Boolean variable value must have been established and that this is inherent in the Kelly reference; (2) the mere choice of data type is a matter of obvious design choice; (3) Deitel is used to show that "tables and Booleans" are well known, such showing illustrates that the use of Boolean variables in a table is obvious, and Appellants' argument with regard to operators is allegedly irrelevant to the issues at hand; and (4) the reference Using Excel 97, 3rd Edition teaches that a grouping of cells in Excel is inherently a table and shows a lookup table allegedly having variables and values.

Regarding the Examiner's first allegation, it is incorrect to assume that a Boolean variable must be established in order for an IF-THEN-OTHERWISE function to evaluated. As explained in Appellants' Brief, an IF-THEN-OTHERWISE function is evaluated to one value or another depending on whether a condition is met or not. There is no requirement that the result of "set" or "unset", or alternatively "True" or "False," be stored in a Boolean variable in order to determine what value should be returned by the IF-THEN-OTHERWISE function. To the contrary, the IF-THEN-OTHERWISE function is a branching function where one branch is

followed when one condition exists, and a second branch is followed when the condition does not exist. There is no requirement for a Boolean variable to be established and a value stored in this Boolean variable in order for the IF-THEN-OTHERWISE function to operate properly. The Examiner's allegation is an attempt to read in a feature to the Kelly reference that is not actually there in an attempt to make Kelly look more like the claimed invention than it really is. This simply fact is, Kelly does not teach or suggest the Boolean variables recited in claims 1, 10 and 11, despite the Examiner's allegations to the contrary.

With regard to the Examiner's second allegation, the choice of variable or data type is not necessarily a "matter of obvious design choice" as alleged by the Examiner. Different variable types have different functionalities associated with them. For example, character variable types have a different functionality than floating point variables or integer variables. One would not say that a character variable type is equivalent to floating point variables or integer variables and thus, the selection of one over the other is a matter of obvious design choice. In fact, if one were to put a character variable in a function requiring a floating point variable, the resulting code would be inoperable and would generate an error.

Similarly, a Boolean variable has a different functionality from other types of variables. As is generally known to those of ordinary skill in the art, a Boolean variable has one of two states, "true" or "false," e.g. 1 or 0. A Boolean variable cannot be set to any other value than one of these two states. Thus, a Boolean variable is not interchangeable with other types of variables, such as a character variable, floating point variable, or integer variable, and therefore, the selection of a Boolean variable to implement the functionality of the present invention is not a mere matter of "obvious design choice," despite the allegations made by the Examiner.

With regard to the Examiner's third allegation, the teachings of Deitel have been adequately addressed in Appellants' Brief and the Examiner's statements do nothing to refute Apellants' arguments. As stated in Appellants' Brief, Deitel only teaches a way to initialize a multidimensional array using C++ and the problems occurring with operators "==" and "=". These arguments are not irrelevant to the issue because these are the actual teachings of Deitel cited by the Examiner. The fact that Deitel teaches something different from what the Examiner alleges it teaches is not an irrelevant fact.

Moreover, Appellants have never disagreed that Boolean variables, in general, are known in the art, or that tables, in general, are known in the art. It is the particular combination and

arrangement of elements recited in the claims that was not known prior to Appellants' invention. Thus, even if Deitel were found to generally teach tables and Boolean variables, this does not make obvious the particular arrangement of elements recited in the claims. The Examiner is engaged in piecemeal examination of the claims without considering the claims as a whole. As a result, the Examiner fails to consider the particular arrangement of elements recited in the claims and instead, has devised an erroneous rejection simply because, in the Examiner's opinion, a plurality of disparate references allegedly teach generalizations that the Examiner, using hindsight reconstruction, attempts to combine to reach the claimed invention. This simple fact is, Deitel does not teach the features the Examiner alleges it teaches, and the particular arrangement of elements recited in the claims is not obviated by the alleged combination of Deitel and Kelly.

With regard to the Examiner's fourth allegation, it may be true that a plurality of cells in a spreadsheet is considered to be a table. However, yet again the Examiner is examining the claims in a piecemeal fashion and failing to consider the claim as a whole. Claim 1 clearly recites Boolean variables in a table, and referencing the Boolean variables in one or a plurality of cells in a multi-dimensional spreadsheet. Thus, there are two data structures recited in claim 1 – a table and a spreadsheet. If the spreadsheet in Kelly is considered to be equivalent to the table in claim 1, where is the spreadsheet? If the spreadsheet in Kelly is considered to be equivalent to the spreadsheet in claim 1, where is the table storing the Boolean variables? The Examiner fails to address this situation because the Examiner is engaged in piecemeal examination and is not considering the relationships between the elements recited in the claims. Neither Kelly nor Deitel, either alone or in combination, teach or suggest to have a multi-dimensional spreadsheet having a plurality of cells AND a table having a plurality of Boolean variables, where one or a plurality of the Boolean variables is referenced in one or a plurality of the cells in the spreadsheet.

The Examiner refers to the lookup table in Figure 10.22 as illustrating a table. While Figure 10.22 shows a table representing a lookup formula, this lookup table is merely a shortcut method for inserting values into cells based on the value of another cell. For example, in the example shown in Figure 10.22, the lookup function is used to determine the letter grade of a student based on a numerical value stored in the "student average" column of the spreadsheet. Nowhere in any of these figures or the corresponding text is there any teaching or suggestion to store and manage Boolean variables in a table and referencing one or more of these Boolean

(Appellants' Reply Brief Page 10 of 17)
Bauchot et al. – 09/838,420

PAGE 12/19 * RCVD AT 9/20/2005 1:22:09 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/28 * DNIS:2738300 * CSID:214 722 6533 * DURATION (mm-ss):08-36

variables in cells of a multi-dimensional spreadsheet. To the contrary, the user must reference a lookup function and designate the cell upon which the lookup function is to operate, e.g., the "student average" cells.

The lookup table in Kelly merely provides a convenient mechanism for defining an IF-THEN functionality. In other words, in the depicted example, IF the student average is greater than 80 and less than 90, THEN the letter grade is "B". The Examiner's interpretation of the lookup table as having variables A through F and corresponding values 0 through 90 is simply incorrect and is again, evidence of the Examiner's attempt to try an make the Kelly reference appear to teach the features of the present invention when in fact it does not. The values A through F are not variables as alleged by the Examiner but merely values that correspond to other values. As stated above, the value "B," in the lookup table corresponds to values 80 through 89. The value "B" is not a variable, it is a value that may be inserted into a cell that references the lookup function of the lookup table if the cell upon which the lookup function operates has a value between 80 and 89. Nowhere in any of these figures or corresponding text is there any teaching or suggestion to have a table of Boolean variables in which these Boolean variables are managed, referencing one or a plurality of the Boolean variables in one or a plurality of cells, determining the content of the cell or plurality of cells, wherein each of the Boolean variables can impact the content of a cell within the electronic spreadsheet.

Thus, for the reasons set forth above, and in Appellants' Brief, the alleged combination of references does not in fact obviate the features of independent claims 1, 10 and 11. Therefore, Appellants respectfully request that the Board of Patent Appeals and Interferences overturn the rejection of claims 1, 10 and 11 under 35 U.S.C. § 103(a).

V.   **Response to Examiner's Remarks Regarding Rejection Under 35 U.S.C. 103(a) of Dependent Claims 2-9**

A.   **Claim 2**

With regard to claim 2, the Examiner alleges: (1) Deitel clearly teaches the concepts of assigning and storing names and status values; (2) it is a matter of obvious design choice as to "how one implements a desired group sets of variables;" and (3) it is inherent in the lookup table

that names are stored in the table and are assigned a status value. With regard to the Examiner's first allegation, it has been shown above and in Appellants' Brief that Deitel, in actuality, does not teach or suggest those features that the Examiner alleges Deitel teaches. Regarding the Examiner's second allegation, it has been discussed above how using Boolean variables is not merely a design choice since the functionality of the mechanism is impacted by the type of variable utilized. If one type of variable makes the mechanism operational and another type of variable makes the mechanism inoperable, then clearly the selection of a particular type of variable is not merely a design choice but is integral to the operation of the mechanism as a whole.

With regard to the Examiner's third allegation, it has been shown above that the values stored in the lookup table of Kelly are actually values and are not variables as alleged by the Examiner. Thus, the Examiner's whole assumption is simply incorrect and as a result, the Examiner's allegations that the lookup table shows variable names and status values is simply erroneous. The lookup table of Kelly shows one value that corresponds to another value. No variables, let alone Boolean variables, are shown in the lookup table of Kelly nor are there any Boolean variable names or corresponding status values shown in the lookup table of Kelly.

Thus, despite the Examiner's allegations to the contrary, neither Kelly, Deitel, nor the Microsoft Dictionary, either alone or in combination, teaches or suggests the features of dependent claim 2. Accordingly, Appellants respectfully request that the Board of Patent Appeals and Interferences overturn the rejection of claim 2.

B.   Claim 3

With regard to claim 3, the Examiner alleges: (1) that Appellants misunderstand the purpose of 35 U.S.C. § 103(a) and misunderstand the recited limitation; (2) Deitel shows updating variable status values and it is merely a matter of design choice as to the data type of a variable; and (3) the features of claim 3 are inherent in the lookup table of Kelly. Appellants first submit that Appellants' representative is well aware of the purpose of 35 U.S.C. § 103(a) having had 4 years of experience as an Examiner and 8 years of experience as a practitioner before the U.S. Patent and Trademark Office. It is the Examiner who is reading in features to the references, that are not actually present or supported by any teaching or suggestion in the

references, in an attempt to recreate the present invention having first had benefit of Appellants' disclosure. This is clearly contrary to the "purpose" of 35 U.S.C. § 103(a). None of the references teach or suggest the features of the claimed invention and as a result, the Examiner must provide numerous unsupported assumptions and jumps in logic to make the references appear to teach the features of the claimed invention when they actually do not. Thus, it is not Appellants' representative that misunderstands the purpose of 35 U.S.C. § 103(a) or the recited limitations.

With regard to the Examiner' second allegation, yet again the Examiner is engaged in piecemeal examination and is not completely considering the claims as a whole, or even Appellants' arguments as a whole. As set forth in Appellants' Brief, since none of the cited references, either alone or in combination, teach or suggest the features of claim 1. As a result, the references cannot teach the features of claim 3 that reference the features of claim 1. Appellants are not merely reciting in claim 3 "updating a value" but instead are reciting updating, in the table, a status value of the one or a plurality of Boolean variables recited in claim 1. Appellants concede that updating values, in general, is old and well known. However, updating a status value of one or a plurality of Boolean variables in a table, such Boolean variables being referenced by one or more cells in a spreadsheet, was not well known prior to Appellants' invention. Merely showing the updating of values in general, does not obviate the specific features of claim 3.

Regarding the Examiner's third allegation, nowhere in Kelly is there any teaching or suggestion to update a status value in the lookup table of Kelly. It is conceivable that a user may modify a value within the lookup table, e.g., the numeral value 80 that corresponds to the character value B may be changed to be "79" for example. Even if this were so, however, this does not teach or suggest the updating of a status value of a Boolean variable in a table associated with a spreadsheet, i.e. having Boolean variables that are referenced by one or more cells in a spreadsheet. All that would be taught is that the values of a lookup function may be modified using the lookup table. Again, the Examiner is reading in features of the present invention into the references rather than evaluating the references for what they actually teach and suggest.

Thus, despite the Examiner's allegations to the contrary, neither Kelly, Deitel, nor the Microsoft Dictionary, either alone or in combination, teaches or suggests the features of dependent claim 3. Accordingly, Appellants respectfully request that the Board of Patent

Appeals and Interferences overturn the rejection of claim 3.

C.   Claim 4

The Examiner's allegations with regard to claim 4 are merely reiterations of allegations made with reference to other ones of the claims. These allegations have been addressed at length above and in Appellants' Brief and thus, will not be repeated here. Suffice it to say, for the reasons previously discussed, Appellants respectfully submit that an IF-THEN-OTHERWISE function does not require that a Boolean variable be defined, the use of Boolean variables is not a matter of obvious design choice, and the Examiner fails to address the fact that the claims recite both a table and a spreadsheet with the table storing Boolean variables that are referenced by one or more cells in the spreadsheet.

Thus, despite the Examiner's allegations to the contrary, neither Kelly, Deitel, nor the Microsoft Dictionary, either alone or in combination, teaches or suggests the features of dependent claim 4. Accordingly, Appellants respectfully request that the Board of Patent Appeals and Interferences overturn the rejection of claim 4.

D.   Claim 5

Regarding claim 5, the Examiner alleges: (1) that Appellants misunderstand the material presented by Kelly because Kelly clearly shows the naming of constant value cells; (2) that a Boolean variable is merely a mechanism for associating the text value of "True" with an integer value 1 and the text value "False" with the integer value 0; and (3) that the names "A through F" in the lookup table of Kelly were changed from nothing to A through F. With regard to the Examiner's allegation that Appellants misunderstand the material presented by Kelly, quite to the contrary, Appellants are very well aware of what Kelly teaches and what Kelly actually does not teach with regard to the present claims. In Appellants' Brief, Appellants acknowledged that the content of page 186 in Kelly provides a "Define Name" dialog box that is used for naming formulas or constant values. Appellants' actual argument, which is not addressed by a teaching of naming constant values, is that Kelly does not teach or suggest renaming Boolean variables in a table associated with a spreadsheet (see Appellants' Brief, page 14). Thus, the Examiner's

pointing out of the teaching that Kelly may rename constants does not address the actual argument presented by Appellants.

Regarding the Examiner's second allegation, a Boolean variable is not merely a mechanism for associating "True" with "1" and "False" with "0." A Boolean variable is a variable that can have only one of two pre-defined states at any one time and may be referenced as a variable in functions, for example. It is certainly true that a value of "1" may be equated to a "True" setting of the Boolean variable and a value of "0" may be equated to a "False" setting, or vice versa. Regardless, however, nowhere in Kelly or Deitel is there any teaching or suggestion regarding renaming of Boolean variables in a table associated with a spreadsheet. Merely pointing out that, in one possible implementation of a Boolean variable, the Boolean variable may have states of "1" and "0" that may be equated to "True" and "False" does not suddenly cause the cited references to teach or suggest Boolean variables and storing Boolean variables in a table data structure associated with a spreadsheet such that cells in the spreadsheet reference one or more of the Boolean variables. Moreover, such an allegation does not suddenly cause Kelly to teach renaming Boolean variables in a table data structure associated with a spreadsheet. All Kelly teaches is a "Define Name" dialog box that may be used to define the name of a function or constant. A Boolean variable is neither.

Regarding the Examiner's third allegation, it is again submitted that the lookup table in Kelly does not define variables but rather a mapping of one value to another value. Thus, allegedly going from "nothing" to the values "A" through "F" is merely the defining of a value, not a variable, and certainly not a Boolean variable. Even if it were reasonable to assume that going from an empty table entry to a value of "A" through "F" were considered to be "renaming" the value, Kelly still only teaches renaming a constant. Nowhere in Kelly is there any teaching or suggestion to rename a Boolean variable in a table data structure associated with a spreadsheet.

Thus, despite the Examiner's allegations to the contrary, neither Kelly, Deitel, nor the Microsoft Dictionary, either alone or in combination, teaches or suggests the features of dependent claim 5. Accordingly, Appellants respectfully request that the Board of Patent Appeals and Interferences overturn the rejection of claim 5.
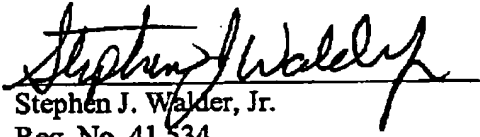
E. Claims 6-9

The rejection of claims 6-9 is overcome for at least the reasons set forth above with regard to claim 1 and the reasons set forth in Appellants' Brief with regard to these claims. Appellants respectfully request that the Board of Patent Appeals and Interferences overturn the rejection of claims 6-9.

VI. Conclusion

In view of the above, Appellants respectfully submit that claims 1-11 of the present application are (1) not indefinite, (2) directed to statutory subject matter, and (3) the features of these claims are not taught or suggested by the Kelly, Deitel, and Microsoft Dictionary references. Accordingly, Appellants request that the Board of Patent Appeals and Interferences overturn the rejections set forth in the Final Office Action.

Respectfully submitted,

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Evidence Appendix

Below is a copy of the Merriam-Webster's On-line Dictionary definition of the term "tangible":

Merriam-Webster Online   Page 1 of 2

Merriam-Webster OnLine

Merriam-Webster Online Dictionary

2 entries found for tangible.
To select an entry, click on it.

tangible[1,adjective]   [Go]
tangible[2,noun]

Main Entry: ¹tan·gi·ble
Pronunciation: 'tan-jə-bəl
Function: adjective
Etymology: Late Latin tangibilis, from Latin tangere to touch
1 a : capable of being perceived especially by the sense of touch : PALPABLE b : substantially real : MATERIAL
2 : capable of being precisely identified or realized by the mind <her grief was tangible>
3 : capable of being appraised at an actual or approximate value <tangible assets>
synonym see PERCEPTIBLE
- tan·gi·bil·i·ty /"tan-jə-'bi-lə-tE/ noun
- tan·gi·ble·ness /'tan-jə-bəl-nəs/ noun
- tan·gi·bly /-blE/ adverb

For more information on "tangible" go to Britannica.com
Get the Top 10 Search Results for "tangible"

http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=tangible   7/29/2005

(Appellants' Reply Brief Page 17 of 17)
Bauchot et al. – 09/838,420